

Amidon Field Stormwater Retrofit Project

Public Stakeholder Kickoff Meeting

December 6, 2018

Cecilia Lane

District Department of Energy and Environment



Agenda

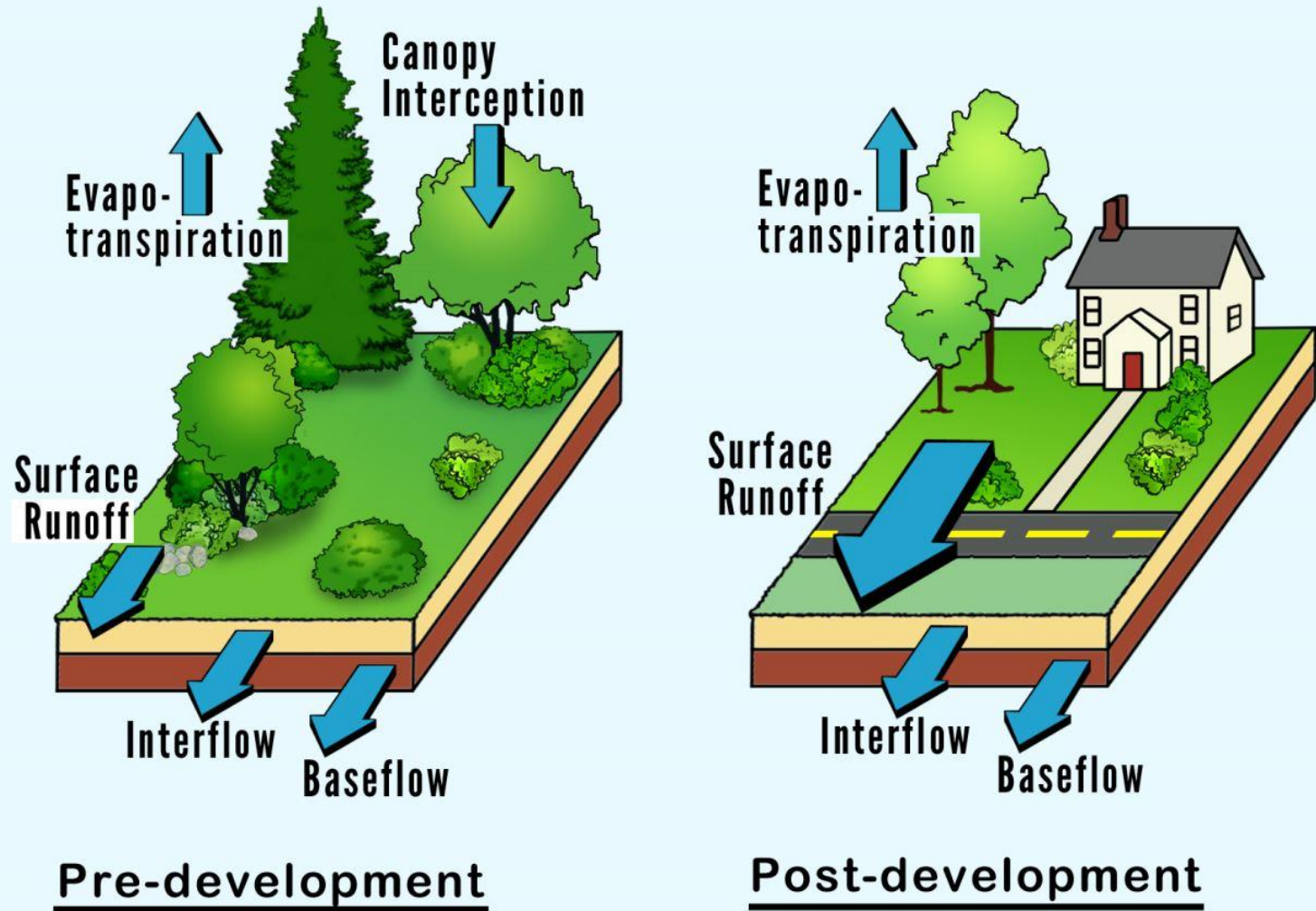
- Project Area & Background
- Existing Conditions
- Restoration Approaches
- Project Objectives
- Concept
- Timeline
- Q&A

Project Location



BACKGROUND

Figure 1.1 Water Balance at a Developed and Underdeveloped Site
(Source: Schueler, 1987)



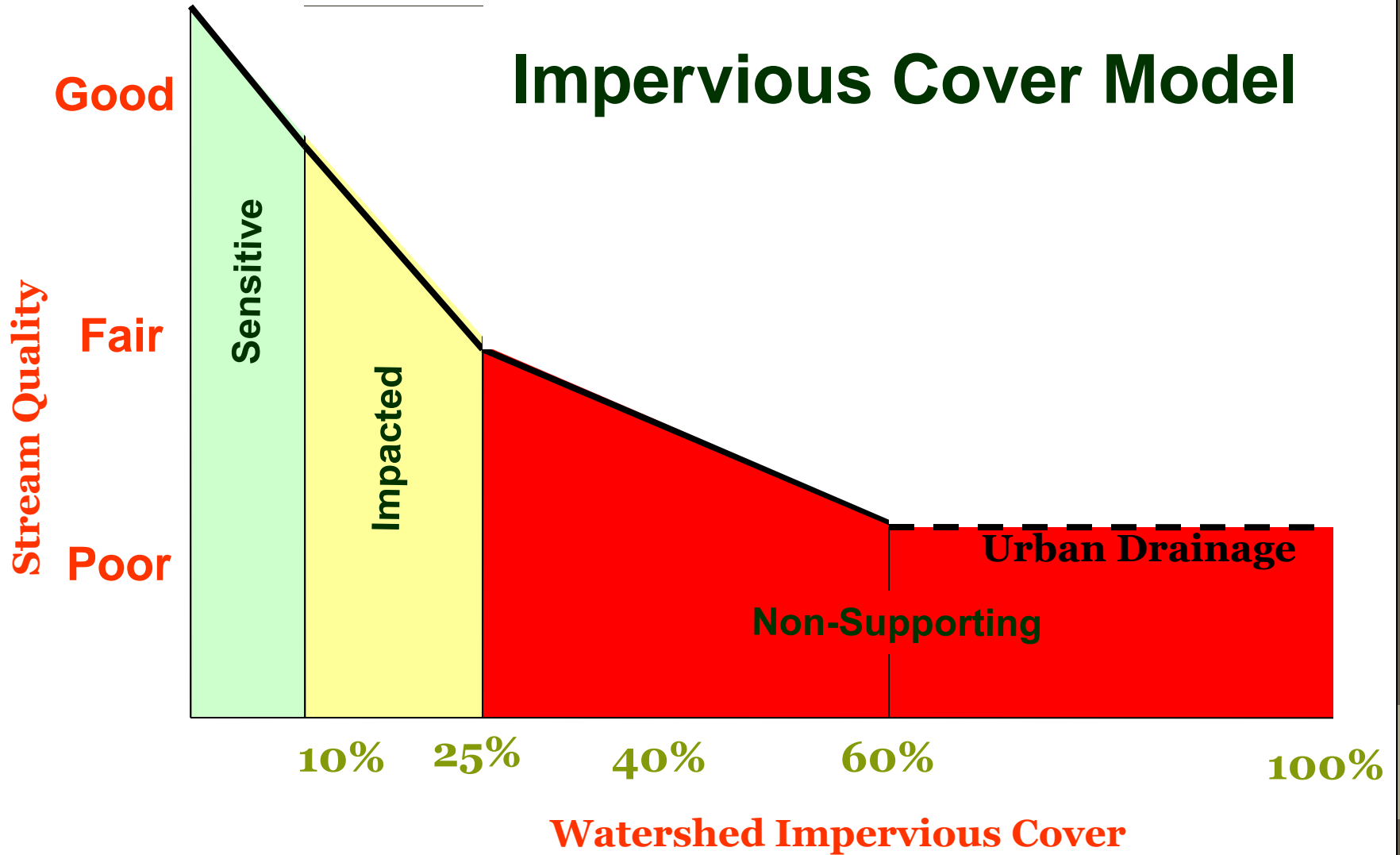
Surface runoff is minimal in an undeveloped site, but dominates the water balance at a highly impervious site.

Problem of Stormwater Pollution



The Original Model

Impervious Cover Model



Existing Conditions



Existing Conditions



RESTORATION APPROACHES

Most stormwater practices all work the same way: they collect stormwater runoff and use or mimic natural processes that result in the infiltration, evapotranspiration or use of stormwater in order to protect water quality and associated aquatic habitat (EPA).

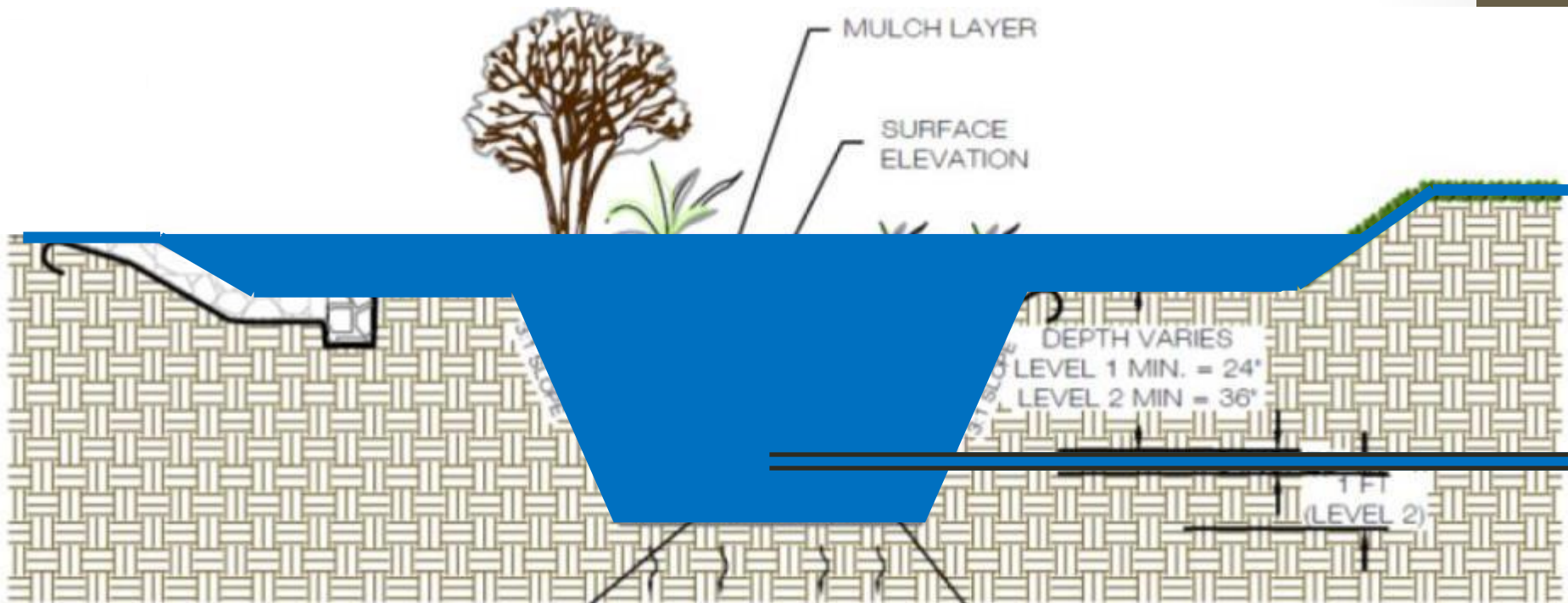
Slow it down, Spread it Out, Soak it In !

Some examples follow...

Bioretention



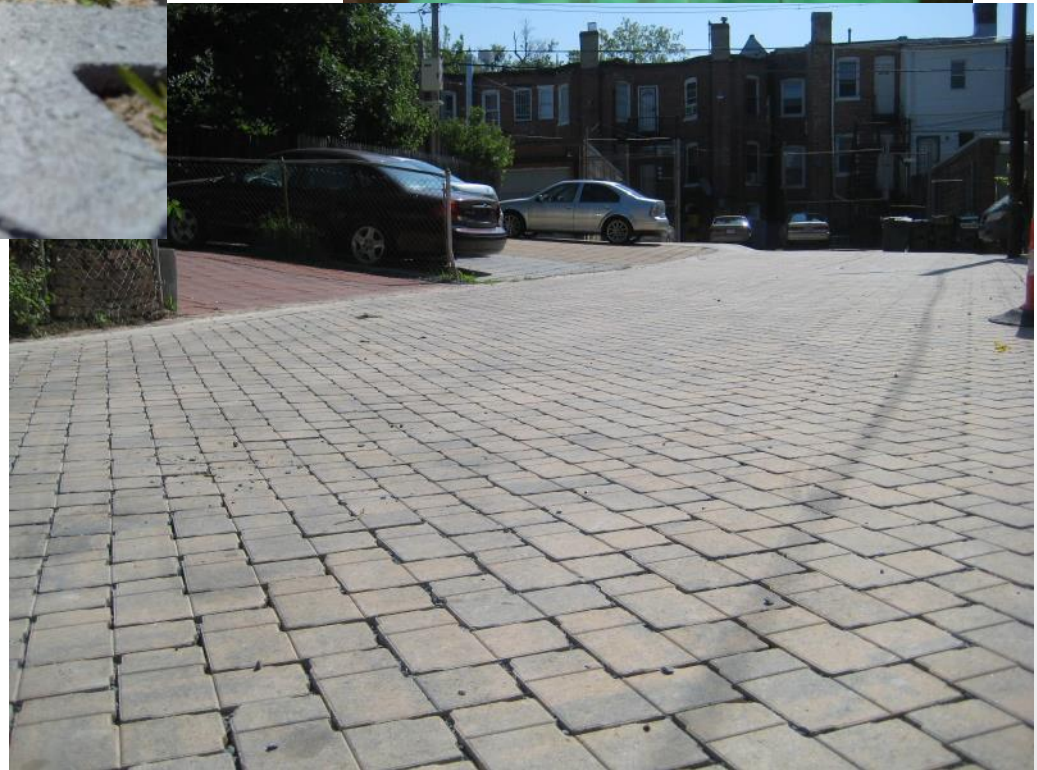
Bioretention: How it works



Bioswales



Permeable Pavement



PROJECT CONCEPT

Project Objectives

- Manage and treat the stormwater from existing *untreated* impervious cover and compacted cover
- Reduce pollutants
- Improve water quality
- Minimal impact to existing trees
- Enhance habitat
- Educate the surrounding community about stormwater impacts
- Be cost-effective



Subsoiling Application

- De-compacts soils in heavily used areas
- Allows for better infiltration of stormwater
- More room for roots = better vegetation

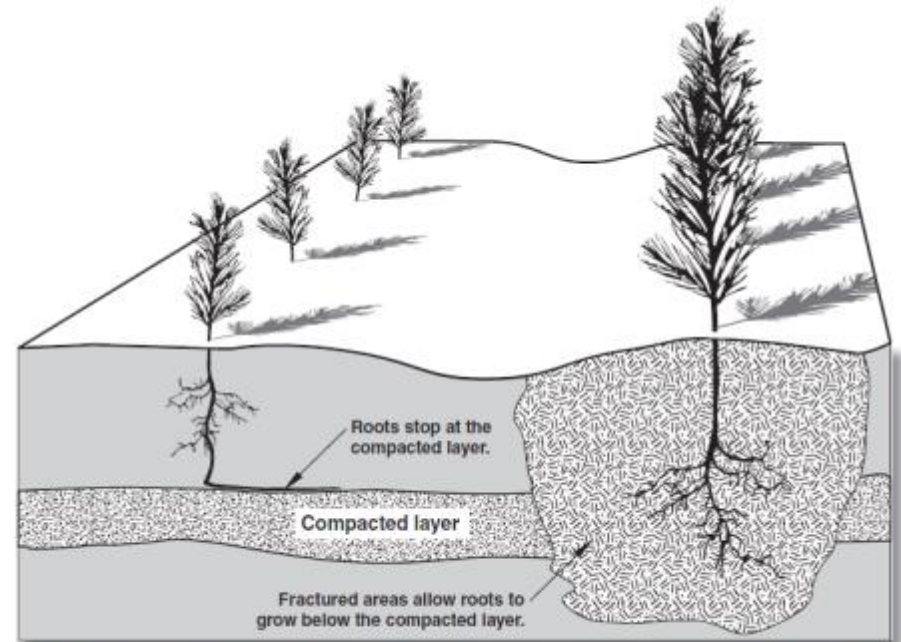


Figure 2—This illustration shows how fracture zones created by a subsoiler can help promote deep, healthy root systems. Ideally, the soil is fractured with minimal disruption to the soil surface and existing plant life.



1-4 weeks depending on approach:

- Soil compaction
- Desired depth
- Soil moisture
- Compost or other amendments

Assumptions

- Treat maximum amount of stormwater from the site in the most cost effective way
- Work only on District land
- Minimal impacts to the community
- Development of a community amenity when possible
- Educational opportunities



Project Timeline

- November 2018: contract awarded
- November – January 2019: field assessment (soil assessment, determination of extent of tree roots, etc.)
- Late spring/early summer: subsoiling to occur
- Will coordinate with DPR programming and school
- 1 more public meeting: ~ late February
 - Present recommendations
 - Timeline for implementation
- September 30, 2019: project complete

FAQs

- How do we find our project sites?
 - Enthusiastic landowners!
 - Funding sources
 - Large areas of untreated impervious cover
 - More impactful locations
- What can I do?
 - RiverSmart Homes
 - Rain Gardens
 - Permeable Pavers
 - Rain Barrels
 - Tree Planting
 - “BayScaping”



Questions

